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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,107	12/13/2001	John F. McEntee	10004452-1	6455

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EXAMINER

NGHIEM, MICHAEL P

ART UNIT	PAPER NUMBER
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2863

DATE MAILED: 10/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/017,107

Applicant(s)

MCENTEE ET AL.

Examiner

Michael P Nghiem

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 August 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7, 8, 10-13 and 23-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 23-31 is/are allowed.
- 6) ☒ Claim(s) 1-5, 8, 10-12 and 32-40 is/are rejected.
- 7) ☒ Claim(s) 7 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

The Amendment filed on August 7, 2003 has been acknowledged.

Specification

1. The disclosure is objected to because of the following informalities:
Specification, paragraph 0018, lines 2-4, the manometer (8) is not connected in parallel with the printhead supply line (4). As shown in Fig. 1, e.g., the top node or pole of (8) is connected to the top node or pole of (4). However, the bottom node or pole of (8) is not connected to the bottom node or pole of (4). Thus, the manometer (8) is not connected in parallel with the printhead supply line (4) as "parallel" is defined by the Webster's Revised Unabridged Dictionary (1913).
Appropriate correction is required.

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o).
Correction of the following is required: Claims 1 and 10, the "printhead and manometer in parallel to a fluid source" is not supported by the specification. Paragraph 0018 merely describes the manometer (8) to be connected in parallel with a printhead supply line (4).

Claim Objections

3. Claims 1 and 10 are objected to because of the following informalities:

- the printhead, manometer, and fluid source are not connected in parallel (see discussions above with regard to specification).

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 8, and 10-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagoshi (US 4,772,900).

Nagoshi discloses all the claimed features of the invention including:

- a printing system (Fig. 4) comprising:
 - a pulse-jet printhead (4) including a nozzle (o), a manometer (2) and lines (1a, 1b) configured to connect said printhead and manometer in parallel to a fluid source (1)

to be connected to a variable pressure compensation source (10, ambient), wherein said system is adapted to vary an output of said variable pressure compensation source to maintain a fluid level within said manometer in a predetermined range to maintain fluid pressure at said nozzle within a corresponding range (column 5, lines 43-47, 56-60, line 66 – column 6, line 9);

- a fluid source (1);
- a sensor (3) to generate a signal in response to the fluid level within said manometer (Fig. 4), and a control unit which generates a control signal for said variable pressure compensation source in response to said sensor signal (detector, Fig. 9b);
- a variable pressure compensation source (10, ambient) ;
- a first valve (5) at an exit of said manometer;
- a print medium (ink);
- said pressure applied is negative pressure (column 5, line 44);
- said pressure applied is positive pressure (ambient).

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 32-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Hoen et al. (US 6,325,354).

Hoen et al. discloses all the claimed features of the invention including:

- a printing system and method of replenishing a pulse jet reservoir (Figs. 1-3) comprising:

- a pulse jet printhead (printhead of 15), a pressure gauge (29) and a reservoir (reservoir of 15 including 71) having an inlet line (57) and an outlet line (61), said inlet line capped by a valve (21) for connection to a fluid supply (fluid supply of 13) and said outlet line in fluid communication with said printhead (column 4, lines 48-51);

- said pressure gauge comprises a manometer (29);

- a fluid supply vessel (13);

- said supply vessel is connected to said reservoir via a supply vessel line (17, 23) connected to said valve (Fig. 2);

- said print medium is fed under pressure to said reservoir during use of said pulse jet nozzle (column 4, lines 14-16);

- gauge pressure is monitored and pressure compensation is applied to maintain said pressure within a desired range (column 4, lines 20-24).

Allowable Subject Matter

6. Claims 7 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims 23-31 are allowed.

Reasons For Allowance

8. The combination or method as claimed wherein a printing system comprising a second valve at an entrance to a fluid reservoir (claims 7, 13, 30) or said print medium comprises a biopolymers or precursor thereof (claims 23, 31) is not disclosed, suggested, or made obvious by the prior art of record.

Response to Arguments

9. Applicant's arguments filed on August 7, 2003 have been fully considered but they are not persuasive.

With respect to the 35 USC 102 rejections, Applicants argue that the manometer of Nagoshi is not connected in a parallel arrangement with the printhead to its fluid source.

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Examiner's position is that Nagoshi discloses a manometer (2) having one end or pole connected to one end or pole of an ink supply line (1b) of a printhead (4) (Fig. 4). This is consistent with Applicants' invention. Fig. 1 of the current invention shows a manometer (8) having one end or pole connected to one end or pole of an ink supply line (4) of a printhead (2).

Applicants further argue that Nagoshi does not disclose a variable pressure compensation source.

Examiner's position is that Nagoshi discloses a variable pressure compensation source (10, ambient) as discussed above.

With respect to new claims 32-40, Examiner's positions have already been discussed above. Further, please refer to Examiner's comments in the Final Office Action filed on November 21, 2002, paper number 6, and the Advisory filed on February 5, 2003, paper number 8.

Contact Information

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Nghiem whose telephone number is (703) 306-3445. The examiner can normally be reached on M-H from 6:30AM – 5:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached at (703) 308-3126. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-5841 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-

0956.



MICHAEL NGHIEM
PRIMARY EXAMINER

Michael Nghiem

October 21, 2003